WO 2004/003714 PCT/PL2003/000058

8

CLAIMS

- 1. A circuit for detection of internal microprocessor watchdog device execution comprising a microprocessor with the internal watchdog device and with an input/output line transmitting information about microprocessor reset, and a device for resetting the microprocessor system, characterized in that, to the input/output line (11) transmitting information about the microprocessor (6) reset, a clock input CK is connected, which triggers the flip-flop (12), whose data input D and an inverted reset input /R are connected to the output of the device (19) for resetting the microprocessor system, and the inverted flip-flop (12) output /Q is connected to the input of the device (19) for resetting the microprocessor system.
- 2. The circuit according to claim 1, characterized in that the input/output line (11) transmitting information about microprocessor ($\underline{6}$) reset is connected to the power supply voltage (\underline{V}_{CC}) through an external resistor ($\underline{10}$).
- 3. The circuit according to claim 1, characterized in that the reset of the microprocessor system resulting from the reset of the microprocessor (6) is performed when the inverted reset input /R and the flip-flop (12) data input D are in a high state and the clock input CK changes from a low to a high state.
- 4. The circuit according to claim 1, characterized in that the reset of the microprocessor system resulting from the reset of the microprocessor (6) is blocked by a low state of the flip-flop (12) inverted reset input /R.
- 5. A method for reset of a microprocessor system comprising a circuit for detection of internal microprocessor watchdog device execution, characterized in that, after disruption of microprocessor operation (6), an input/output line (11) of the microprocessor is set to a high impedance state and a system reset signal, generated by a flip-flop (12), is sent to a device for resetting the

WO 2004/003714 PCT/PL2003/000058

9

microprocessor system, and after finishing the resetting of the microprocessor system, the input/output line (11) is set to a low state.

- 6. The method according to claim 5, characterized in that the microprocessor system is reset, when the flip-flop (12) has an inverted reset input /R, a data input D and a clock input CK, and the inverted reset input /R and the data input D are in a high state and the clock input CK changes from a low to a high state.
- 7. The method according to claim 5, characterized in that the reset of the microprocessor system resulting from the reset of the microprocessor (6) is blocked by imposing a low state on the flip-flop (12) inverted reset input /R.